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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/877,744

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On-Kwok Victor Li

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EXAMINER

COULTER, KENNETH R

ART UNIT

PAPER NUMBER

2141

MAIL DATE

DELIVERY MODE

05/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/877,744

Applicant(s)

LI ET AL.

Examiner

Kenneth R. Coulter

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claims 1 and 9 are directed to methods that are not implemented on hardware.

Independent claims 15 and 19 are directed to apparatus that can be implemented on a computing platform having software instructions. These claims are directed to apparatus that are not implemented on hardware.

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Hardware can be added to these independent claims in order to overcome the 35 USC 101 rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 7 and 9 – 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Gopinath et al. (U.S. Pat. No. 5,925,097) (Directly Programmable Distribution Element).

2.1 Regarding claim 1, Gopinath discloses a method for assigning an address to a node in a network having an arbitrary topology (col. 14, lines 10 – 16 “arbitrary topology networks; col. 16, lines 9 – 15), the method comprising:

providing a first address to a first node such that the first address includes a description of a path to the first node (Fig. 21; col. 25, lines 1 – 11 “local VC number”; col. 34, lines 36 – 61; col. 37, lines 8 – 18); and

establishing a mapping between plurality of output ports in the network and bits in the first address such that a packet, directed to the first address, at a second node in the network is forwarded via an output port on the second node in the network, in response to a specified bit in the first address having a specified value (Fig. 21; col. 25, lines 1 – 11; col. 34, lines 36 – 61; col. 37, lines 8 – 18).

2.2 Per claim 2, Gopinath teaches the method of claim 1 wherein the network is an *optical* network (col. 9 lines 9 – 12).

2.3 Regarding claim 3, Gopinath discloses the method of claim 1 wherein at least one node in the network has more than one address (col. 25, lines 1 – 11; col. 34, lines 36 – 61; col. 37, lines 8 – 18).

2.4 Per claim 4, Gopinath teaches the method of claim 1 wherein concurrent bits in the first address map to output ports on the second node (Fig. 14; col. 25, lines 1 – 11; col. 34, lines 36 – 61; col. 37, lines 8 – 18).

2.5 Regarding claim 5, Gopinath discloses the method of claim 4 wherein the map is a one-to-one correspondence (Figs. 14, 21; col. 25, lines 1 – 11; col. 34, lines 36 – 61; col. 37, lines 8 – 18).

2.6 Per claim 6, Gopinath teaches the method of claim 4 wherein each of the output

ports on the second node maps to a bit in the concurrent bits in the first address (Figs. 14, 21; col. 25, lines 1 – 11; col. 34, lines 36 – 61; col. 37, lines 8 – 18).

2.7 Regarding claim 7, Gopinath discloses the method of claim 1 further including associating an output port in a node to an unused bit in a sub-field corresponding to the node in an address such that in response to a new address for directing a packet to a node in the network, the packet is forwarded via the output port (Figs. 14, 21; col. 25, lines 1 – 11; col. 34, lines 36 – 61; col. 37, lines 8 – 18).

2.8 Per claims 9 – 21, the rejection of claims 1 – 7 under 35 USC 102(b) (paragraphs 2.1 – 2.7 above) applies fully.

Response to Arguments

Applicant's arguments filed 2/28/08 have been fully considered but they are not persuasive.

Applicant argues that the feature “providing a first address to a first node such that **the first address includes a description of a path to the first node**” is not taught by Gopinath.

Examiner disagrees.

Gopinath specifically discloses that the “routing information is part of the VC state, which is accessed based on a local VC number of that port.” (col. 25, lines 7 – 9). In

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addition, Gopinath teaches that the "distribution element is thus **self-routing**, since it does not require any external controller for routine." (col. 25, lines 9 – 11).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R. Coulter whose telephone number is 571 272-3879. The examiner can normally be reached on M - F, 7:30 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth R Coulter/
Primary Examiner, Art Unit 2141

krc